	Application No.	Applicant(s)
Notice of Allowability	09/844,098	EYDELMAN ET AL.
	Examiner	Art Unit
	Philip B. Tran	2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *interview on 7/20/05 and 7/25/05*.

2. ☒ The allowed claim(s) is/are *1,2,4-6,15,16 and 18-20*.

3. ☒ The drawings filed on *27 April 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Philip Tran

PHILIP B. TRAN

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

2.   Authorization for this examiner's amendment was given in a telephone interview

with Mr. Banowsky (Reg. No. 37,773), the undersigned, on July 20, 2005 and on July

25, 2005.

The application has been amended as follows:

IN THE CLAIMS:

Cancel claims 3 and 17.

Amend claim 1 as follows:

1. (Currently Amended) A method to transfer data from a sending application to a

receiving application in a computer environment, the method comprising the steps of:

if the receiving application posts a receive buffer exceeding a threshold size

when posting a send for a pre-selected number of initial data blocks:

transferring subsequent data having sizes greater than the threshold size

using direct memory access read operations:

detecting If the receiving application posts the receive buffer prior to

posting the send;

if the receiving application posts the receive buffer prior to posting the

send:

~~sending data and a RDMA receive advertisement in a message~~ if the receiving application posts a send buffer having a size below the threshold size and one of data and **Remote Direct Memory Access (RDMA)** ~~RDMA~~ Read information has not been received [[.]] **,sending data and a RDMA receive advertisement in a message;**

detecting if the receiving application posts the receive buffer after posting the send:

if the receiving application posts the receive buffer after posting the send:

copying data to a send buffer having sufficient space at a beginning of the send buffer to put a receive advertisement in a message's header when a small send happens;

starting a timer;

putting the receive advertisement in the message's header if the receiving application posts a receive buffer exceeding the threshold size before the timer expires; and

sending the message.

Amend claim 4 as follows:

4. (Currently Amended) The method of claim [[3]] 1 wherein the step of detecting if the receiving application posts the receive buffer after posting the send comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the receiving application performs a small send; and

determining if the sending application does a send causing the receive posted by receiving application to complete.

Amend claim 5 as follows:

5. (Currently Amended) The method of claim [[3]] **1** further comprising the step of putting a standard header onto the send data if the receiving application does not post a receive buffer exceeding the threshold size before the timer expires.

Amend claim 15 as follows:

15. (Currently amended) One or more computer-readable media having executable instructions that, when executed, implement a method to transfer data from a sending application to a receiving application in a computer environment using direct memory access read operations, the method comprising the following steps:

detecting if the receiving application posts the receive buffer prior to posting the send;

if the receiving application posts a receive buffer prior to posting a send:

~~sending data and a RDMA receive advertisement in a message~~ if the receiving application posts a send buffer having a size below the threshold size and one of data and **Remote Direct Memory Access (RDMA)** ~~RDMA~~ Read information has not been received [[.]] **,sending data and a RDMA receive advertisement in a message;**

detecting if the receiving application posts the receive buffer after

posting the send;

if the receiving application posts the receive buffer after posting the

send:

copying data to a send buffer having sufficient space at a

beginning of the send buffer to put a receive advertisement in a

message's header when a small send happens:

starting a timer;

putting the receive advertisement in the message's header if

the receiving application posts a receive buffer exceeding the

threshold size before the timer expires; and

sending the message.

Amend claim 16 as follows:

16. (Currently Amended) The one or more computer-readable ~~medium~~ **media** of

claim 15 wherein the step of detecting if the receiving application posts the receive

buffer prior to posting the send comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the sending application does a send causing the receive posted by

the receiving application to complete; and

determining if the receiving application does a small send.

Amend claim 18 as follows:

18. (Currently Amended) The one or more computer-readable ~~medium~~ **media** of claim [[17]] **15** wherein the step of detecting if the receiving application posts the receive buffer after posting the send further comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the receiving application performs a small send; and

determining if the sending application does a send causing the receive posted by receiving application to complete.

Amend claim 19 as follows:

19. (Currently Amended) The one or more computer-readable ~~medium~~ **media** of claim [[17]] **15** having further executable instructions for performing an additional step comprising putting a standard header onto the send data if the receiving application does not post a receive buffer exceeding the threshold size before the timer expires.

Amend claim 20 as follows:

20. (Currently Amended) The one or more computer-readable ~~medium~~ **media** of claim 15 wherein the computer environment has at least one system area network.

REASONS FOR ALLOWANCE

3.   Claims 1-2, 4-6, 15-16 and 18-20 are allowed.

4.   The following is an examiner's statements of reason for allowance:

The examiner has found that the prior art of record does not appear to teach or suggest or render obvious the claimed limitations in combination with the specific added limitations as recited in independent claims and subsequent dependent claims. The prior art of record fails to teach or suggest a method to transfer data from a sending application to a receiving application in a computer environment wherein detecting if the receiving application posts a receive buffer prior to posting a send and determining a method of transferring data according to a size of the receiving buffer as argued by applicant [see Remarks of Amendment filed on Apr 25, 2005] and also fails to teach or suggest a method to transfer data from a sending application to a receiving application in a computer environment wherein other determination steps are performing in sequence such that detecting if the receiving application posts a receive buffer after posting a send, if so, then copying data to a send buffer having sufficient space at a beginning of a send buffer to put a receive advertisement in a message's header when a small send happens and starting a timer and putting a receive advertisement in the message's header if a receiving application posts a receive buffer exceeding the threshold size before a timer expires and then sending the message.

ADDITIONAL REFERENCES

5.   The examiner as of general interest cites the following references:

   A) Wicki et al, WO 97/31459.

   B) Leger et al, U.S. Pat. No. 5,771,356.

6.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip B. Tran whose telephone number is (571) 272-3991. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip Tran
Philip B. Tran
Art Unit 2155
July 20, 2005